REMARKS

In this Amendment, Claim 1 has been amended to recite an inner subbing pressure-sensitive layer --comprising rubber or acrylic pressure-sensitive adhesive--. This amendment is supported by the specification at, for example, page 4, line 1 and page 12, lines 2-3.

Claim 6 has been amended to recite a subbing base material --selected from the group consisting of plastic film and metal foil--. This amendment is supported by the specification at, for example, page 14, lines 16-17.

Claims 8, 12 and 13 have been cancelled.

No new matter has been added and thus, entry of the Amendment is respectfully requested. Upon entry of the Amendment, Claims 1-7 and 9-11 will be all the claims pending in the application.

In Paragraph No. 3 of the Office Action, Claims 1, 4-6 and 10-13 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over NITTO DENKO CORP. in view of Johnson et al and further in view of Enrenberg et al.

Applicants respectfully traverse the rejection. While not agreeing with the arguments for the rejection, Applicants have, in this Amendment, amended Claim 1 to further define the inner subbing pressure-sensitive layer to be one made of rubber or acrylic pressure-sensitive adhesive. Applicants have also amended Claim 6 to further define the subbing base material to be plastic film or metal foil.

Johnson et al discloses a multi-layer article comprising a sealant layer, a core layer, and optionally, a bonding layer in this order (Abstract), wherein the core layer may be made of open

or closed cell foams (column 3, lines 41-45), and the bonding layer may be an acrylic PSA polymer (column 20, lines 11-12 and 25-26).

Johnson et al also discloses that a tie layer may be disposed between the sealant (and bonding) layer and the core layer to enhance adhesion between the two layers, wherein the tie layer can be polymeric films, PSA, pressure-activated adhesives, heat activated adhesives and the like. (column 8, line 58-column 9, line 3).

However, Johnson et al does not disclose or suggest the presently claimed waterstop and deterioration-reducing properties by using a tie layer between the sealant layer and the core layer.

Specifically, in the present invention, as described in the specification, on pages 31 to 32, a sealant material comprising a polyester PSA layer, a subbing acrylic PSA layer and a foamed closed-cell structure shows that water stops (leaking) at a compressibility of 10% in both a U-shaped water stop test and water stop test after high temperature treatment. On the other hand, the sealant material without a subbing layer shows that water stops (leaking) at a compressibility of 40% in a U-shaped water stop test and 30-50% in water stop test after high temperature treatment.

Accordingly, even if there might be a suggestion or motivation to combine Johnson et al and NITTO DENKO in view of Enrenberg et al, the combination would not render obvious the present invention, because the present invention provides unexpected superior results.

In the Advisory Action, the Examiner considered that the working and comparative Examples are not commensurate in scope with the claims in that only one outer polycarbonate composition was used. The Examiner also questioned the effects of the adhesive layer thickness on the results.

In response, Applicants herewith submit a Declaration Under 37 C.F.R. § 1.132 executed by Mr. Katsuhiko Tachibana, a co-inventor of the present invention.

In the Declaration, a polyester-based adhesive was prepared of a different composition, including polycaprolactonediol as the polymer containing a polycarbonate structure. A water sealing material was then prepared in the same manner as in Example 2-3 in the present application, except that the adhesive composition prepared above was used instead of the polyester-based adhesive composition in Example 2-3. The sample was evaluated, and the test results are the same as those obtained using Example 2-3 (Table 2 of the present application).

Regarding the effects of adhesive layer thickness on the results, Mr. Tachibana states that within the range of an adhesive layer thickness of 2 to 100 μm, the thickness of the adhesive layer never adversely affects the sealing property. Mr. Tachibana further states that what exhibits a sealing capability under compression of a waterstop sealing material is the foam layer having a foamed structure; the adhesive layer does not undergo compressed deformation.

This is clearly demonstrated by the comparison of Example 2-1 with Example 2-2. In Example 2-1, a polyester-based adhesive layer of 30 μm is provided on the outermost layer. On

the other hand, in Example 2-2, a polyester-based adhesive layer of 5 μm is provided on the outermost layer. In these two examples, the waterstop capability is substantially equal.

In view of the above, the Examiner is respectfully requested to reconsider and withdraw the rejection.

In Paragraph No. 5 of the Office Action, Claims 2-3 and 7-9 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over NITTO DENKO CORP. in view of Johnson et al and further in view of Enrenberg et al as applied to Claims 1, 4-6 and 10-13 above, and further in view of Hartman et al.

Applicants respectfully traverse the rejection for the same reasons discussed above, because Hartman et al does not rectify the deficiencies of NITTO DENKO CORP. and Johnson et al in view of Enrenberg et al. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection.

It was asserted at page 2 of the Advisory Action that Claims 12 and 13 fail to further limit the base claim.

In response, Applicants have, in this Amendment, canceled Claims 12 and 13.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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